INTERNAL ANALYSIS OF SELF REGULATED LEARNING: DEVELOPMENTAL STUDY

Pepin Nahariani*, Erika Agung Mulyaningsih*
Management Departement Nursing of Pemkab Jombang School of Health Science
Email: pepin.nahariani@gmail.com

ABSTRACT

Introduction: The new students must adapt to the learning process if they enter to the universities. Self regulated learning (SRL) is a concept of adaption and act of judging oneself to get goal setting, organizing metacognition, time management, strategy of learning, self-evaluation, self-confidence, self-efficacy and physical and social environment settings. The purpose of study was to analyze the internal factors SRL of forethrough, performance and self reflection phase at Pemkab Jombang Institute of Health Science. **Methods**: The design was developmental study. Population of 71 nursing students 4th semester of academic year 2012-2013. The sample used 60 students with simple random sampling. Data were collected by questionnaire, and analyzed using regression results smartPLS 2.0. **Results**: The results showed that the correlation between forethrough and performance phase of 0.976, the correlation between performance and self reflection phase of 0.374, the correlation between forethrough and self reflection phase of 0.576. **Discussion:** SRL Model systematically shaped by internal factors of forethrough, performance and self reflection phase. SRL Model should be recommended to all of the learning process and can especially be on learning in nursing students.

Key words: Self Regulated Learning, Forethrough Phase, Performance Phase, Self Reflection Phase.

INTRODUCTION

Nursing students must to adapt in the learning process. Nursing students are expected to be more independent and professional nurse. Self regulated learning (SRL) is a concept of adaption and act of judging oneself to reach goal setting, metacognition, time management, learning strategy, self-evaluation, self-confidence, self-efficacy, and physical and social environment settings.

However, in the fact there are still many students have difficulty in learning process and have no effective way of learning. Based on preliminary studies, 57% of students less prepared of setting goal, 65% of students do not decide in goal strategy and less analysis of evaluating one's goal progress and adjusting strategies to have success. In addition, 54% of students still have the low motivation to get learning proccess. Aquiring self regulatory competence is an developmental task and enhance human functioning accross the life span (Nasrin, 2012). Study Program of Bachelor Nursing at Pemkab Jombang Institute of Health Science has been no development of the students learning behavior so that the necessary development of the model approach SRL. However, the formation of character and competence achievement in student learning approach SRL could not be explained.

According to (Pribadi, 2009) mentions that the motivation in the learning process is important. Students who experienced academic difficulties were more likely to have problems of achievement, therefore it is less ready to learn and avoid it. Many studies illustrate the importance of SRL. It is succeeded of learning effectively and efficiently. It will be obtained at a higher level of satisfaction (Desyanti, 2007). The formed characters of and softskill are another effect which have the motivation for life long learning. Based on background above, this study aimed to prove analyze the internal factors of the SRL model in nursing students.

METHODS

This study is a developmental study. The final result of this design was to determine the causal relationship among internal factors of SRL. They are forethrough, the performance and self reflection phase. The population were all students of Nursing Bachelor program in the 4th semester level II Pemkab Jombang institute of Health Science, they were 71 students. The sample size were 60 respondents with simple random sampling technique. Research conducted at March 13th to April 25th, 2013.

The instrument's internal factors of SRL is a questionnaire created based on the concept SRL by Zimmerman (2002). Measurement variable internal factors of SRL using model test with 2.0 smartPLS is a path analysis of structural equation model analysis techniques (Structural Equation Modeling-SEM).

RESULTS

Table 1.1 Forethough phase of SRL

No	Forethough phase	Criteria				
		never	Seldom	often	ussually	Total
		f (%)	f (%)	f (%)	f (%)	f (%)
Task analysis						
1	Goal setting	47	45	7	2	100
2	Strategic planning	52	42	5	2	100
Self motivation						
3	Intrinsic interest	22	38	18	22	100
4	Outcome espectation	10	52	28	10	100
5	*Self efficacy*	7	45	25	28	100
	Total	27	43	17	13	100

Table 1.2 Performance phase of SRL

No	Performance phase	Kategori				
		never	Seldom	often	ussually	Total
		f (%)	f (%)	f (%)	f (%)	f (%)
Self Control						
1	*Imagery*	8	52	23	17	100
2	*Self instruction*	15	50	25	10	100
3	Task strategic	40	22	0	38	100
4	*Focus*	2	40	32	27	100
Self observation						
5	*Self experiment*	25	50	15	10	100
6	*Self recording*	5	42	20	33	100
	Total	16	43	19	22	100

Table 1.3 Self Reflection phase of SRL

No	Self Reflection phase	Kategori				
		never	Seldom	often	ussually	Total
		f (%)	f (%)	f (%)	f (%)	f (%)
Self Judgment						
1	*Self evaluation*	20	48	23	8	100
2	*Causal attribution*	15	45	28	12	100
Self reaction						
3	*Adaptive*	12	53	20	15	100
4	*Satisfaction*	2	15	30	53	100
	Total	12	40	20	22	100

Table 1.4 The crosstab between forethrough and perforemance phase

Forethrough phase	Performance phase			
	worse	enough	good	Total
worse	3,3	5	0	8,3
enough	5	66,7	10	81,7
good	0	5	5	10
Total	8,3	76,7	15	100
Path analysis = T-Statistic = 2,971, Path coef = 0,976				

Tabel 1.5 The crosstab between performance and self replection phase

Performance phase	Self reflection phase			
	worse	enough	good	Total
worse	3,3	5	0	8,3
enough	8,3	48,3	20	76,7
good	0	5	10	15
Total	11,7	58,3	30	100
Path analysis	T-Statistic = 2,969, Path coef = 0,374			

Tabel 1.6 The crosstab between forethough and self replection phase

Self reflection	Forethrough phase			
	worse	enough	good	Total
worse	3,3	8,3	0	11,7
enough	5	50	3,3	58,3
good	0	23,3	6,7	30
Total	8,3	81,7	10	100
Path analysis	T-Statistic = 3,073, Path coef = 0,576			

DISCUSSION

The forethrough phase consists of two subvariables ie task analysis and self-motivation. Table 1.1 shows that in the forethrough phase of task analysis is less than optimal. Most of students seldom do strategic planning and goal setting learning. Most students often make learning goal orientation, learning expectations criteria and rarely have self efficacy study.

The forethrough phase is the first phase among of phase of SRL in which the students are required to prepare the material before learning process. The forethrough phase is important in learning cycle of SRL because it determines the success of the next phase. Students will prepare the lesson plans, to know the schedule of lectures (Zimmerman, 2004). Besides identify the learning goals, students are also required to find the best way to divide the topics and skills to make it easier to understand (Ormrod, 2012). Students who do not have the motivation to be a hedge on the results of the implementation of tasks resulting in less than optimal preparing lectures anyway (McMahon, 2001).

The performance phase consists of two variables, self-control and self-observation. Table 1.2 shows that the performance phase of self-control subvariable obtained most students rarely do the imagery learning, self-instruction, tasks strategy performance. Conversely, it can be seen that most of the students always focus on learning. In subvariable self-observation, most students rarely perform self experiment. Instead, most of the students are always doing the self recording.

Increased student achievement in the classroom, not only the need for a task strategy, goals setting and good self efficacy, but also need a good student performance in the classroom. Students must master the knowledge and skills that make high performance (Mezei, 2008). Student get standard and goals setting which conduct self monitoring and self evaluation of cognitive processes. If our thoughts and actions are under the self control without any coercion of others, it is called SRL (Zimmerman, 2010).

In a previous study showed that the performance phase is generally more supportive theory of Zimmerman in 2012 than forethrough phase. It is based on self-control strategy of students who have high achievement is more significant than the students who have low achievement during the learning process. Students who have a high level achievement will have metacognition assessment and self-control better than students with low achievement (Zimmerman, 2012). Some of the factors which can hinder a person's psychological in the performance phase, they are are : 1) decreased visual acuity; 2) adequate lighting; 3) The bright colors that contrast for props; 4) the ability of loss hearing; 5) the ability to distinguish sounds less with age (Nursalam, Effendi, 2008).

In this study, students still have self control and low self-observation. One way to carry out minimal student is seeking the help of a friend, assessed personal strengths in developing strategies for learning and evaluating learning goals (Schunk, 2001).

Students who successfully organize themselves in the learning process are those who are trying to focus their attention on the learning and removes from distracting thoughts. Another approach is to enhance the learning process by providing the training in peer mediation, in which students help each other to solve interpersonal problems. However, students are expected to have a concept of SRL can emphasize intrinsic motivation to learn that other factors may be controlled to achieve a learning competencies

(Syah, 2003).

Self reflection phase of SRL includes self Judment and self reaction. Table 1.3 shows that the self-judgment is less than optimal, it can be seen most students rarely perform self-evaluation, self-attribution. In self subvariable reaction, adaptive learning attitude. In contrast, large of students have very often and always satisfied on learning.

Self-reflection phase is set up of self-evaluation standards, establish the cause of problems in the process of learning. Students defense mechanism and coping strategies of adaptation to establish more effective learning for oneself. students with high achievement more likely to have causal attribution in the performance phase of SRL, satisfaction of learning and adaptive response in achieving learning goals than students who are low achievers (Zimmerman, 2012).

Self Attribution is one's cognitive factors through mental activity believing all things that can lead to success. Students have certain criteria and hopes to achieve a competency learning goals and students know how to get it. For example, students have the amount of time needed to prepare the exams and the students know how to interpret the test to be passed. The attribution factors that affect student learning success are: 1) emotional reaction to the successes and failures; 2) the expectation of future success; 3) options in the future; 4) efforts and perseverance; 5) learning strategies and performance in class (Ormrod, 2012).

Students are less able to manage time to learn well and learning contract strategy is less effective in feedback evaluation should ideally be more than one. This is consistent with previous research that says that in an evaluation of SRL, the feedback should be conducted more than once (Pintrick, 2004).

Based on table 1.4, the crosstab correlation between forethrough phase and performance phase have a value both largely have enough value, less has good value and less. However, in cross-tabulations can not be found good value forethrough and performance phase.

In learning goals, students are also required to find the best way to choose the topics and skills to make easier to understand. Step of task analyzing is to identify the knowledge and specific behaviors which are essential for learning. The task analysis can be useful to select the most appropriate method for the study of learning (Ormrod, 2012). In previous studies mentioned that the strategic planning has a significant correlation value between forethrough and performance phase. Students who have more time in the forethrough phase of the learning process will produce a better performance phase in the implementation process SRL (Zimmerman, 2012).

Self-efficacy affects students in learning activities, objectives and efforts as well as the persistence of students in activities in the classroom, thus self-efficacy will affect student learning and academic achievement. Students who have high self-efficacy tend to be a lot of learning and achievement than students who have low self-efficacy (Matuga, 2009). There are several factors that influence the development of self-efficacy, namely 1) the success and failure of prior learning, 2) learning support from significant others, 3) the successes and failures of other students and 4) the success and failure in larger groups (Ormrod, 2012). Knowledge is known as a transfer material and a skills component that is critical to the process of implementation of the activities a person (Bandura, 2006).

One of the factors that affect a student is having problems, both internal and external (Agina, 2011). Students mentioned that there is a decrease in motivation in learning resulting in a lack of forethrough phase. This is consistent with the concept of self-regulated learning that the forethrough phase has an essential role in the success of further learning. Improved preparation phase as the base material for scores learn better in class (Bandura, 1982). Student perceptions are not considered essential learning will have an impact on learning outcomes. Previous research found that the achievement of learning objectives are influenced by perceptions of students in the learning process. Perception will affect students in making adaptive strategies to achieve goals that include the awareness of students to think critically, run metacognition that will affect the achievement of learning objectives (Artino, 2012).

Based on the cross tabulation table 1.5 correlation between performance and self-reflection phase. It has a value both nearly half and enough value, a fraction of better and less. However, on cross-tabulations can not be found either performance phase or self-reflection

value.

The achievement of a competency can be gained by trying to imitate people who do well and to adopt the solving procedure of problems which encountered in learning from a good facilitator done (Nicole, 2011). Students in addition to observe and try, they also will get the achievement of the results of operations to be carried. In this performance phase, requires a strategy for self-control in the implementation process of learning, self-control components include self instruction, focus, imagery and task completion strategy. During the performance phase if it is implemented consistently and effectively, it will result in the ability of certain skills. The ability of self-monitoring and self-observation will also facilitate the phase of self-reflection in the process of self-evaluation and self-attribution so that students are able to adapt the learning process to achieve the expected competencies (Ormrod, 2012).

Based on previous studies that have mentioned that performance phase can affect self-reflection. This can be explained that more and more task strategic performed, self-evaluation, self attribution and learning how to accept the results with satisfaction. This result is important for the facilitators and students to pack the task becomes a plan SRL and became the standard appropriate to assess student satisfaction according experiential learning (Zimmerman, 2012).

Based on cross-tabulations 1.6 relations between self reflection and forethrough phase. It has a value of both the half had enough value, a fraction better and less. However, on cross-tabulations can not be found either implementation phase value and the value of self-reflection is less.

In self-reflection phase, there is an ability of self-evaluation, self-attribution, satisfied attitude and able to adapt. Self-evaluation is more likely to be influenced by the performance of other friends who have a certain standard and level of the previous assessment. Attribution themselves influenced by the background a person's beliefs about success and failure. It is important to achieve a successful learning (Schunk, 2004). Failure attribution in controlling the causes of learning problems are usually influenced by the inability of the skill, less strategizing achievement of objectives (Huy, 2010). Adaptation experienced for students who often risk failure is a defensive attitude to learning, such as the attitude of avoiding the task, not understanding the material received and apathy (Ormrod, 2012).

In a previous study also mentioned that the forethrough will affect the self-reflection phase. It is added by having a good metacognition will increase student self-evaluation based on the results of student competency achievement. Metacognition can also significantly improved by student achievement results satisfaction scores resulting in student performance can also showed a good attitude (Zimmerman 2002).

Self-evaluations of SRL leads to attempts in comparing the information obtained through the self-monitoring with a standard or set objectives in the preparatory phase. In addition to self-evaluation, self-reflection also has a self-reaction activities. Self reaction is continuously carried out will affect student learning and preparation phase often have an impact on the performance phase that is displayed in the future against the objectives set (Susanto, 2006).

CONCLUSIONS

Development of internal factor SRL formed from forethrough, performance and self-reflection phase. It determines the success of the forethrough and the performance of the self-reflection phase.

RECOMMENDATIONS

The SRL can be generally applied to nursing education, especially at the undergraduate level. The nursing education institutions are expected to implement the SRL to increase student motivation to learn. Future studies should further examined the preparatory phase SRL by considering extrinsic factors that affect the learning process as a means of satisfaction infrastructures, methods of learning, family support and psychosocial aspects of the student.

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